

Transmittal Letter filed herewith. A clean copy of the claims as amended is appended hereto.

Kindly enter the following amendments:

IN THE CLAIMS:

Please amend Claims 1 - 11 and 13 - 15 as follows:

1. (Thrice Amended) A method for forming a semiconductor device having a laminated structure [of] including a dielectric film made from a metal oxide [which is] formed on a surface of a substrate and a CVD high melting point metal nitride film directly formed thereover, wherein said metal nitride film is directly formed on said dielectric film by introducing a source gas containing said high melting point metal into a chamber in which said substrate is contained,

said method comprising a step of treating said substrate in an ambient that is non-reactive with respect to said metal oxide formed on said surface of said substrate in said chamber wherein said non-reactive ambient includes at least one of a gas non-reactive with respect to said metal oxide contained in said dielectric film and NH_3 gas,

[keeping said] wherein a temperature of said substrate is set at a prescribed temperature, before said source gas containing said high melting point metal is introduced into said chamber.

2. (Twice Amended) The method for forming a semiconductor device according to claim 1, wherein said non-reactive ambient treating step includes a flow stabilizing step for a gas flow in said chamber.

3. (Twice Amended) The method for forming a semiconductor device according to claim 2, wherein said non-reactive gas portion of said non-reactive ambient treating step is introduced into said chamber during said flow stabilizing step.

4. (Twice Amended) The method for forming a semiconductor device according to claim 1, wherein said non-reactive ambient treating step includes a step for heating said substrate to a predetermined temperature, and said flow stabilizing step is performed after said heating step has been completed and said predetermined temperature has stabilized for a predetermined length of time.

5. (Twice Amended) The method for forming a semiconductor device according to claim 4, wherein said NH_3 gas portion of said non-reactive ambient is introduced into said chamber during said heating step.

6. (Twice Amended) The method for forming a semiconductor device according to claim 5, wherein said NH_3 gas portion of said non-reactive ambient has a NH_3 partial pressure atmosphere of no greater than 1.0 Torr and no less than 0.1 Torr.

7. (Twice Amended) The method for forming a semiconductor device according to claim 5, wherein said non-reactive gas and said NH_3 gas portions of said non-reactive ambient are introduced into said chamber during said flow stabilizing.

8. (Twice Amended) A method for forming a semiconductor device having a laminated structure of a dielectric made from a metal oxide and a CVD high melting point metal nitride film formed thereover, wherein said metal nitride film is directly formed on said dielectric film by introducing a source gas containing said high melting point metal into a chamber in which said substrate is contained, said method comprising[:];

heating a substrate onto which said dielectric film is formed to a prescribed temperature in an ambient having a NH_3 atmosphere of no greater partial pressure than 1.0 Torr and no less than 0.1 Torr before the introduction of said source gas containing said high melting point metal.

9. (Twice Amended) The method for manufacturing a semiconductor device according to claim 8, said method further comprising prior to the introduction of said source gas:

a step of heating said substrate to a prescribed temperature; and

a step of maintaining said substrate temperature in a gas ambient that is non-reactive and neither oxidizing nor reducing with respect to said metal oxide and the flow thereof is stabilized[,]; and

said NH_3 gas being introduced during at least one of said substrate heating step and said flow stabilization step.

10. (Once Amended) The method for manufacturing a semiconductor device according to claim 9, said method further comprising;

a step of introducing said source gas containing said high melting point metal, and growing a CVD high melting point metal nitride film after performing said flow stabilization step[:]; and

a step of raising the partial pressure of the NH_3 gas during a second half of the CVD film growing step so that annealing of said nitride film [is done] by the NH_3 gas occurs.

11. (Thrice Amended) The method for manufacturing a semiconductor device according to claim 1, said method further comprising;

a step, performed before said CVD high melting point metal nitride film forming step, of heating a substrate onto which said dielectric film made from a metal oxide is formed, in said chamber while introducing therein said non-reactive gas; and

a step of forming said high melting point metal nitride film on said dielectric film made from a metal oxide by introducing a gas mixture comprising said NH_3 gas and said non-reactive gas, said non-reactive gas in an amount equal to or larger than said NH_3 gas, and said source gas containing said high melting point metal in [an] a volume amount that is less than said NH_3 gas [and said non-reactive gas].

13. (Twice Amended) The method for forming a semiconductor device according to claim 1, wherein said dielectric film made from a metal oxide is a tantalum oxide (Ta_2O_5) film.

14. (Twice Amended) The method for forming a semiconductor device according to claim 1, wherein said substrate is heated to a temperature between approximately 400°C and 700°C before said source gas containing said high melting point metal is introduced into said chamber.

15. (Twice Amended) The method for forming a semiconductor device according to claim 1, wherein said non-reactive gas is [one gas] selected from nitrogen, argon, hydrogen gas, or a mixture of these gases.